

## PE anti-mouse PLZF Antibody

<b>Catalog# / Size</b>	145803 / 25 µg 145804 / 100 µg
<b>Clone</b>	9E12
<b>Regulatory Status</b>	RUO
<b>Other Names</b>	Promyelocytic leukemia zinc finger, Zbtb16, Zinc finger and BTB domain-containing protein 16, Zfp145
<b>Isotype</b>	Armenian Hamster IgG
<b>Description</b>	PLZF (promyelocytic leukemia zinc finger), also known as Zbtb16, Zinc finger and BTB domain-containing protein 16, Zfp145, is a member of the BTB-POZ family of transcription factors. It was first identified in a patient with acute promyelocytic leukemia, where a reciprocal chromosomal translocation <i>t</i> (11;17)(q23;q21) resulted in a fusion with <i>RARA</i> gene encoding retinoic acid receptor alpha. Expression of this transcriptional repressor in immune cells differs between human and mouse. In humans, PLZF is expressed in CD34 <sup>+</sup> progenitor cells and in primitive multipotent hematopoietic cell lines, NK cells, γδ T cells, CD4 <sup>+</sup> and CD8 <sup>+</sup> T cells. It is also expressed in MR1-specific mucosal-associated invariant T cells as well as in MHC class II-restricted T cells that develop via a thymocyte-thymocyte interaction. PLZF is involved in NK cell function, cellular quiescence, and growth suppression. It also inhibits gene expression induced by retinoic acid receptor. In mice, PLZF is highly expressed in immature CD1d-restricted invariant NKT (iNKT) cells, a subset of γδ (Vg1.1 <sup>+</sup> Vd6.3 <sup>+</sup> ) T cells, and non-invariant CD1d-restricted T cells. PLZF exists as a homodimer or in complex with PLZP, and has been shown to be involved in the development of NKT cells. It is also reported to be expressed in embryonic tissues, giving rise to hematopoietic progenitors.

### Product Details

---

<b>Verified Reactivity</b>	Mouse
<b>Antibody Type</b>	Monoclonal
<b>Host Species</b>	Armenian Hamster
<b>Immunogen</b>	Combination of peptides covering the amino, carboxyl and hinge regions of the PLZF.
<b>Formulation</b>	Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide.
<b>Preparation</b>	The antibody was purified by affinity chromatography and conjugated with PE under optimal conditions.
<b>Concentration</b>	0.2 mg/ml
<b>Storage &amp; Handling</b>	The antibody solution should be stored undiluted between 2°C and 8°C, and protected from prolonged exposure to light. <b>Do not freeze.</b>
<b>Application</b>	<a href="#">ICFC - Quality tested</a>
<b>Recommended Usage</b>	Each lot of this antibody is quality control tested by intracellular immunofluorescent staining with flow cytometric analysis using 1% PFA plus 70% ethanol. For flow cytometric staining, the suggested use of this reagent is ≤0.25 µg per million cells in 100 µl volume. It is recommended that the reagent be titrated for optimal performance for each application.
<b>Excitation Laser</b>	Blue Laser (488 nm) Green Laser (532 nm)/Yellow-Green Laser (561 nm)
<b>Product Citations</b>	<ol style="list-style-type: none"> <li>1. Sugimoto C, <i>et al.</i> 2022. <i>Elife</i>. 11:. <a href="#">PubMed</a></li> <li>2. Anderson CK <i>et al.</i> 2019. <i>Cell Rep</i>. 27(2):537-548 . <a href="#">PubMed</a></li> <li>3. Park JY, <i>et al.</i> 2019. <i>Cell Rep</i>. 27:2548. <a href="#">PubMed</a></li> <li>4. Fu S, <i>et al.</i> 2020. <i>Nat Commun</i>. 0.7625. <a href="#">PubMed</a></li> </ol>
<b>RRID</b>	AB_2561966 (BioLegend Cat. No. 145803) AB_2561973 (BioLegend Cat. No. 145804)

## Antigen Details

---

<b>Structure</b>	BTB domain-containing
<b>Distribution</b>	iNKT cells, $\gamma/\delta$ (Vg1.1 <sup>+</sup> Vd6.3 <sup>+</sup> ) T cells, non-invariant CD1d-restricted T cells
<b>Function</b>	Involved in NKT cell development
<b>Cell Type</b>	NKT cells, T cells, Mesenchymal Stem Cells
<b>Biology Area</b>	Cell Biology, Immunology, Signal Transduction, Stem Cells, Transcription Factors
<b>Antigen References</b>	<ol style="list-style-type: none"><li>1. Constantinides MG, <i>et al.</i> 2011. <i>J. Immunol.</i> 187:309.</li><li>2. Kovalovsky D, <i>et al.</i> 2008. <i>Nat. Immunol.</i> 9:1055.</li><li>3. Chen Z, <i>et al.</i> 1993. <i>EMBO J.</i> 12:1161.</li><li>4. Chen Z, <i>et al.</i> 1994. <i>Proc. Natl. Acad. Sci. USA</i> 91:1178.</li></ol>
<b>Gene ID</b>	<a href="#">235320</a>

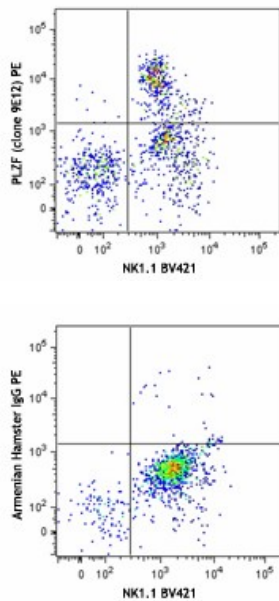
## Other Formats

---

PE anti-mouse PLZF, PE/Cyanine7 anti-mouse PLZF, PerCP/Cyanine5.5 anti-mouse PLZF

## Product Data

---



C57BL/6 mouse leukocytes from mouse liver were surface stained with CD45 PerCP, CD8 Alexa Fluor® 488, and NK1.1 Brilliant Violet 421™. Cells were then fixed and permeabilized with 1% PFA plus 70% ethanol, followed by intracellular staining with PLZF (clone 9E12) PE or Armenian hamster IgG PE isotype control. Data shown was gated on CD45<sup>+</sup>/CD8<sup>+</sup> positive cells.

For research use only. Not for diagnostic use. Not for resale. BioLegend will not be held responsible for patent infringement or other violations that may occur with the use of our products.

\*These products may be covered by one or more Limited Use Label Licenses (see the BioLegend Catalog or our website, [www.biolegend.com/ordering#license](http://www.biolegend.com/ordering#license)). BioLegend products may not be transferred to third parties, resold, modified for resale, or used to manufacture commercial products, reverse engineer functionally similar materials, or to provide a service to third parties without written approval of BioLegend. By use of these products you accept the terms and conditions of all applicable Limited Use Label Licenses. Unless otherwise indicated, these products are for research use only and are not intended for human or animal diagnostic, therapeutic or commercial use.

BioLegend Inc., 8999 BioLegend Way, San Diego, CA 92121 [www.biolegend.com](http://www.biolegend.com)  
Toll-Free Phone: 1-877-Bio-Legend (246-5343) Phone: (858) 768-5800 Fax: (877) 455-9587